

Summer Studentships 2024/2025

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|----------------------------|-------------------------------|-----------|
| Main supervisor: | Ahmed Barazanchi | |
| Email address: | Ahmed.barazanchi@ccdhb.org.nz | |
| Other Supervisor/s: | | |
| Host Department: | General Surgery | |
| Location: | Wellington Hospital | |
| | Can students work remotely? | Partially |

PROJECT TITLE:

Evaluating the accuracy of risk prediction tools in Emergency Laparotomy

AIM:

To evaluate the accuracy and calibration of current emergency laparotomy risk prediction tools

METHODS:

STROCCS methodology (Strengthening the Reporting of Observational Studies in Epidemiology guidelines) will be followed for this study

Emergency laparotomies over the last three years will be collected with 30-day follow up.
Patient demographics, operative detail and surgical risk scores will be collected.
Primary outcome is mortality.

The following risk prediction tools will be assessed:

- 1) NELA risk prediction tool (the new version not yet widely validated)
- 2) REAL study risk prediction tool (the new NZ specific risk tool)
- 3) NZ risk tool (developed with the NZ minimum dataset)
- 4) HAS tool (unique tool newly developed using frailty and physiologic scores)
- 5) ACS-NSQIP (widely used tool developed with the NSQIP database)

The accuracy of the risk prediction tool will be assessed using the area under the curve receiver operating characteristics. C-statistic or area under the curve will be used to assess model discrimination.

The Hosmer-Lemeshow test will assess model calibration or goodness of fit.

RESEARCH SIGNIFICANCE:

Emergency Laparotomy is a widely used surgical access route for various procedures, but it carries a significant risk of morbidity and mortality, ranging from 10 to 20%. This high risk has prompted several national and international initiatives to better record and reduce mortality rates associated with emergency laparotomy. Notable efforts include the National Emergency Laparotomy Audit (NELA) in the UK, the American College of Surgeons National Surgical Quality Improvement Programs (ACS-NSQIP), and the Australian and New Zealand Emergency Laparotomy Audit – Quality Improvement (ANZELA-QI). These programs focus on audits and quality improvement to enhance outcomes for EL patients.

Effective audits and quality improvement programs require accurate preoperative risk prediction of post-operative morbidity and mortality. Risk prediction helps in promptly directing appropriate treatment and support, which has been shown to reduce mortality. Additionally, accurate risk prediction facilitates better communication between clinicians, patients, and families, enabling informed decision-making and targeted therapeutic interventions. For patients with very high risk of mortality, preoperative risk assessment can guide decisions towards palliative care or non-operative treatments like drainage, stenting, or antibiotics.

Older risk prediction tools have been assessed in New Zealand.(1) However, the new tools and the updates of older tools are yet to be validated.

- (1) Barazanchi A, Bhat S, Palmer-Neels K, Macfater WS, Xia W, Zeng I, Taneja A, MacCormick AD, Hill AG. Evaluating and improving current risk prediction tools in emergency laparotomy. *Journal of Trauma and Acute Care Surgery*. 2020 Aug 1;89(2):382-7.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Data collection for variables used in modern risk prediction for emergency laparotomy
The student will learn research methods, study design, data collection, and statistical analysis.
The student will also learn about emergency laparotomy surgery and some of the indications.
This research is ideal for students who wish to pursue a career in general surgery.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

No experience needed. The student will be guided through all parts of the research.

Summer Studentships 2024/2025

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| Main supervisor: | PhD student, Andres Pierobon | |
| Email address: | andi.pierobon@postgrad.otago.ac.nz | |
| Other Supervisor/s: | Ben Darlow, Associate Professor, Department of Primary Health Care and General Practice, University of Otago, Wellington. Will Taylor, Honorary Associate Professor, Department of Medicine, University of Otago, Wellington. | |
| Host Department: | Primary Health Care and General Practice | |
| Location: | Wellington | |
| | Can students work remotely? | No |

PROJECT TITLE:

Testing of the measurement properties of the Performance of Lower Limb Scale (POLLs) to assess lower limb physical function

AIM:

This project will assess the quality of a new performance outcome measure to assess lower limb physical function. As a secondary objective we will compare the self-reported physical function and objective physical function.

METHODS:

The study will recruit participants with diverse physical abilities (low, intermediate, and high physical function) from different recruiting centres (e.g., exercise community programs, sports clubs, and the University of Otago). Participants will be asked to complete self-reported questionnaires and undertake the POLLs test, which consists of 24 hierarchical-order physical activities. The measurement properties of the POLLs will be analysed using Rasch measurement theory.

RESEARCH SIGNIFICANCE:

Lower limb physical function assessment in clinical practice and research currently relies on self-reported measures, which are associated with response biases and some present high-ceiling effects. Available objective performance measures assess a limited number of physical activities and fail to cover the diverse range of physical functions presented in a population like osteoarthritis.

The POLLs is a recently developed measure that includes a wide variety of activities. It was developed after reviewing the literature, interacting with different stakeholders, and surveying the general population. This study will explore the quality of the POLLs by assessing its measurement properties.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will participate with the supervisor in data collection, taking field notes, analysing the data, and drafting written reports. The student will learn about musculoskeletal outcome measures and measurement properties, quantitative data analysis, and develop writing skills.

STUDENT PREREQUISITES:

Any health student with an interest in musculoskeletal health and outcome measures. Physiotherapy students are encouraged to get involved.



Summer Studentships 2024/2025

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| Main supervisor: | Dr Ankur Gupta (Nephrologist, Palmerston North Hospital) | |
| Email address: | ANKURG@MDHB.HEALTH.NZ | |
| Other Supervisor/s: | Dr Leila Arnold , Dr Norman Panlilio , Dr Hagay Weinberg | |
| Host Department: | Nephrology | |
| Location: | Palmerston North Hospital and Remote | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Retrospective analysis of Renin angiotensin aldosterone system blockers and Sodium glucose transporter-2 inhibitors reinitiation after discharge from Palmerston North Hospital.

AIM:

In conducting this study, we will accomplish the following specific aim: Assess post discharge patterns of reinitiation of RAAS blockers and SGLT-2 inhibitors. This is a Quality Improvement project to investigate the prescribing practices for these cardioprotective medications used in our healthcare settings.

METHODS:

A retrospective audit of discharge summaries of Palmerston North Hospital with diagnosis of AKI, shock, sepsis, acute gastroenteritis, diarrhoea, ketoacidosis, heart failure, cardiorenal syndrome, dehydration and volume depletion would be done for last 5 years. Medications (RAAS blockers and SGLT-2 inhibitors) at the time of admission and discharge would be assessed and whether the individuals who were on these medications at the time of admission were prescribed at the time of discharge or not. If they were not prescribed at discharge, if any advice for reinitiation by General practitioner (GP) in community provided or not. Community dispensing within 3 months from the date of discharge would also be looked to see if there was reinitiation. The collection of the data is only for quality improvement and not for any medicolegal implication. The hospital physicians and GP's would be shared the results of the audit so as to improve prescribing practices. Future service improvement in prescribing practices would translate into prevention of complications related to hypertension and/or diabetes and improved patient outcomes.

RESEARCH SIGNIFICANCE:

RAAS blockers and SGLT-2 inhibitors are proven to improve cardiac and vascular outcomes in many disorders like hypertension, diabetes, heart failure, coronary artery disease, stroke, and chronic kidney disease. Individuals admitted to hospital for surgery, infections, sepsis, volume depletion and acute kidney injury, often have these

medications discontinued to prevent hemodynamic effects on the kidneys and metabolism. Some of these individuals may not be reinitiated on these medications and it could prove detrimental to their overall outcomes.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will undertake a brief literature review of the relevant studies in published journals, be trained in retrospective audit, and learn to analyse the data. This would further be translated into academic research paper which will help in the student's academic writing skills.

Exposures to scientific method include literature review, Retrospective analysis, Data analysis, Paper presentation to conference, Scientific writing and Publication to indexed journal.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

None required

STUDENT:

Do you currently have a student for this project? *NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.*

YES NO

If yes, name of student:

Funding confirmed? YES NO

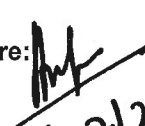
If yes, please provide the account code:

If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders): University of Otago

Please confirm the following:

- I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.
- I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.
- I have provided suggestions for at least 1-2 potential funders for this project.

Supervisor Signature:

 (ANKUR GUPTA)
11/07/24

Date:

Summer Studentships 2024/2025

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| Main supervisor: | Annie Wong | |
| Email address: | Annie.wong@otago.ac.nz | |
| Other Supervisor/s: | Courtney MacDonald Leigh Searle | |
| Host Department: | Medical Oncology | |
| Location: | Wellington Blood & Cancer Centre | |
| | Can students work remotely? | Yes / No |

PROJECT TITLE:

Fertility Services for patients receiving cancer treatments at Wellington Blood & Cancer Centre

AIM:

To audit the utilisation of fertility services by patients who received cancer treatment at Wellington Blood & Cancer Centre (WBCC)

METHODS:

1. Review the literature from international oncology organisations for fertility preservation during cancer treatment
2. Retrospective audit of patients treated at WBCC for the past 5 years:
 - 1) Patients with cancer referred to fertility associates including cryopreservation
 - 2) Patients who received GHRH agonist for ovarian suppression (pharmacy audit)

RESEARCH SIGNIFICANCE:

Describe the supports provided to patients with cancer to guide their fertility needs.
Based on the literature review and existing referrals, create patient information sheets on fertility supports for patients receiving cancer treatment at WBCC

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Literature search, retrospective audit

Summer Studentships 2024/2025

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| Main supervisor: | Ayo Fasoro | |
| Email address: | ayo.fasoro@otago.ac.nz | |
| Other Supervisor/s: | Ed Randal | |
| Host Department: | Public Health | |
| Location: | 43 Hanson Street, Mount Cook Wellington | |
| | Can students work remotely? | Yes (Partly) |

PROJECT TITLE:

Trends and implications of housing tenure of older adults

AIM:

To access older adults' home ownership and other types of tenure trends in New Zealand and the future implications.

METHODS:

Detailed methods will be refined with the student at the start of the studentship. The student will gather information from various sources, and review and synthesise them. This project will identify relevant studies on older adults' housing tenure, summarise findings, and identify gaps in the literature. Publicly available data will be used to report the trends in housing tenure among New Zealand older adults. Relevant policy documents will also be reviewed to assess their present and future implications on older people's ability to own their homes and not be at risk of severe housing deprivation. These findings will also be compared to other Organisation for Economic Co-operation and Development (OECD) countries, to know where New Zealand stands.

RESEARCH SIGNIFICANCE:

Evidence shows that older adults who own and live in their homes are economically advantaged, have better health and have longer disability-free life expectancy than those who are both public and private renters. Understanding the trend in home ownership and other tenure types among New Zealand older adults is a step towards knowing the future implications this trend could have on the health and wellbeing of older people.

This will be a precursor to investigating trends in the proportion of older adults who own their homes, are in emergency and public housing, private rentals, or receive accommodation supplements, using the administrative data from 2013-2023 in the Integrated Data Infrastructure (IDI).

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

- Use academic databases such as PubMed, Google Scholar, and others to locate pertinent studies and papers.
- Integrate information from various sources to provide a cohesive understanding of the topic.

- Write in a clear, concise, and formal academic style.
- Use relevant citation tools to cite sources in a consistent referencing style.
- Interpret and present data in tables and graphs.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

- Writing skills
- Research skills: Ability to use databases and libraries to review research articles, grey literature, and policy documents.
- A fair knowledge of older people and housing.
- Time management skills.

Summer Studentships 2024/2025

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|----------------------------|---|-------------------------------|
| Main supervisor: | Dr Carolyn Clark | |
| Email address: | Carolyn.clark@otago.ac.nz Carolyn.clark@ccdhb.org.nz | |
| Other Supervisor/s: | | |
| Host Department: | Department of Medicine | |
| Location: | Wellington | |
| | Can students work remotely? | For some parts of the project |

PROJECT TITLE:

The patient experience at Wellington Renal Department: Is renal replacement therapy provided in a culturally safe manner?

AIM:

Survey patients with end stage renal failure who attend haemodialysis or peritoneal dialysis units regarding their experiences with staff and systems in the Wellington renal department and analyse this data using quantitative methods to provide guidance to the department for future care.

METHODS:

A survey will be created using Qualtrics that will ask a number of different questions regarding demographics and patient experience both in outpatients and within the dialysis unit. There will also be space for free text answers. Patients will be approached in the haemodialysis unit and by telephone and if they are prepared to fill out the survey it will be provided to them either by paper format, email or postal service, depending on the patient preference. The survey will contain consent information and without consent no data will be collected. The surveys will be returned anonymously via the dialysis units, mail or electronically. This data will then be analysed quantitatively using prespecified research questions and stratified by gender and ethnicity. Any free text answers will be read and collated.

RESEARCH SIGNIFICANCE:

There is evidence that Māori and Pacific People experience institutional racism and interpersonal racism within healthcare systems in Aotearoa NZ. There is also evidence that Māori and Pacific People have poorer health outcomes than non-Māori non-Pacific People. Studies have shown a direct link between exposure to racism and health outcomes. It is important that every health care facility in Aotearoa be reflecting upon the cultural safety of the care they provide. Unconscious bias is universal and without asking for actual patient experiences we cannot be certain that we are avoiding structural and interpersonal racism. Data obtained from this survey will be used to change processes where necessary to maintain cultural safety.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The supervisor will provide ethics approval and will write and create the survey, although the student may have some input in survey questions. The student will approach dialysis patients to discuss the survey and invite them to participate if they wish to. The student will distribute surveys in the manner preferred by individual patients and will keep a record of surveys distributed and the planned method of collection. The student will create a survey drop box to place in each haemodialysis unit so that patients and whānau can return them anonymously. The student will then create a spreadsheet and collate the results quantitatively. The student and supervisor will plan data presentation together and the supervisor will perform all statistical analysis. The student will prepare a poster and present the findings at the summer studentship presentation day.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

No previous experience necessary. Experience with excel spreadsheets helpful.
Students of Māori or Pacific background specifically encouraged to apply.

Summer Studentships 2024/2025

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|----------------------------|---|------------|
| Main supervisor: | Dr Carolyn Clark | |
| Email address: | Carolyn.clark@otago.ac.nz Carolyn.clark@ccdhb.org.nz | |
| Other Supervisor/s: | | |
| Host Department: | Department of Medicine | |
| Location: | Wellington | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Audit of Wellington renal transplant planning practices: What are the reasons people are not waitlisted for kidney transplant? Is equitable care provided across ethnicities?

AIM:

Aim 1: Follow up on 2023 summer student project by adding data to spreadsheet for 2016 and 2020
 Aim 2: Identify the patients not waitlisted for transplant and conduct an audit of the reasons for non waitlisting using electronic medical records
 Aim 3: analyse the results by ethnicity to identify any differences in opportunity for transplantation, differences in the reasons for non waitlisting and evidence of inequitable care

METHODS:

The summer studentship project 2023 resulted in a spreadsheet of patients initiating renal replacement therapy between 2017 and 2020 with evidence of differences in opportunity for transplantation, particularly pre-emptive transplantation, across ethnicities. These results were not statistically significant. Using the spreadsheet already created and electronic medical records this project will extend the data a further 2 years to investigate whether these differences are persistent. The extended spreadsheet will lead to a list of patients who were never waitlisted for kidney transplant. The researcher will access electronic medical records for the hospital and the renal department to identify reasons for non listing. This data will then be investigated for differences between patients of Māori descent, Pacific Island descent and non Māori non Pacific People, as well as differences between patients from different locations and comorbidities.

RESEARCH SIGNIFICANCE:

It is well known that Māori and Pacific people are overrepresented with end stage renal failure yet underrepresented in transplantation. There are medical reasons why this might be the case, such as increased likelihood of diabetes and its complications. However, research from Huria et al has shown that institutional racism may also be playing a role here. We want to closely investigate our own practice at the Wellington Renal Service to see if systemic changes are

required to increase transplantation among Māori and Pacific People, which could increase quantity and quality of life.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will perform the data entry to add to the spreadsheet created 12 months ago and will review the medical records themselves to come up with categories and themes around non waitlisting. The supervisor will provide education on data presentation and will do the statistical analysis. The student will prepare a poster and present their data at the summer student presentation day.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

No previous experience necessary. Experience with excel spreadsheets helpful.
Students of Māori or Pacific background specifically encouraged to apply.

Summer Studentships 2024/2025

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| Main supervisor: | Dr Chloë Campbell | |
| Email address: | chloe.campbell@otago.ac.nz | |
| Other Supervisor/s: | Prof Lynn McBain | |
| Host Department: | Primary Health Care & General Practice | |
| Location: | | |
| | Can students work remotely? | No |

PROJECT TITLE:

Analysis of medicines-related communication in hospital discharge summaries

AIM:

To gain an understanding of the approach different hospitals in Aotearoa New Zealand (NZ) take to communicating medicines-related information to clinicians in primary care and to assess medicines-related information in a sample of discharge summaries issued from wards at Te Whatu Ora Capital, Coast & Hutt Valley hospital sites.

METHODS:

This project involves two components:

- (1) A national stocktake and assessment of hospital policies/guidelines regarding medicines-related communication in discharge summaries.
- (2) A retrospective audit of medicines-related information included in a sample of discharge summaries from wards at Te Whatu Ora Capital, Coast & Hutt Valley hospital sites.

RESEARCH SIGNIFICANCE:

Avoidable harm from medicines is a significant burden on health systems, with transitions from hospital to community care considered to be particularly risky. Hospital discharge summaries are the main communication mechanism between hospitals and primary healthcare providers and are a key tool in patient safety. They contribute to effective clinical handover and continuity of care, which reduces the risk of unplanned hospital readmissions. It is widely recognised internationally that discharge summaries often include incomplete or incorrect medication information, changes made in hospital are often not documented, or they may be documented but not explained which overall, can contribute unnecessary harm. The current situation in NZ is unknown, though anecdotal evidence suggests similar issue to those seen internationally. By gaining an understanding of the approach different hospitals in NZ take to communicating medicines information to primary care and undertaking a local audit, the findings of this project will help inform local developments as NZ works towards improved use of digital communication channels and consistency in approach across the whole health system.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student would contribute to the design and application of an analytical frame for comparative analysis of policies/guidelines for medicines-related communication in discharge summaries from hospitals around Aotearoa. They would undertake data collection and analysis for a retrospective audit of medicines-related information included in discharge summaries from Te Whatu Ora Capital, Coast & Hutt Valley hospital sites and prepare a report of results for local and national stakeholders working to improve medication safety in NZ. It is anticipated that a publication would result from this project.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

This project would suit either 4th year medical student or a pharmacy student between 3rd and 4th years.

Summer Studentships 2024/2025

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| Main supervisor: | Dr Claire Henry | |
| Email address: | Claire.henry@otago.ac.nz | |
| Other Supervisor/s: | Dr Bryony Simcock (Consultant, Gynaecology Oncology, CDHB) Dr Sathana Ponnampalam (Endometrial cancer clinical equity lead, fellow, Auckland Hospital) Dr Sillipa Naiqiso (Consultant, Gynaecology Oncology, Auckland Hospital) Ms Roimata Tipene (Project manager, Māori Health Pipeline, Te Whatu Ora, Auckland) | |
| Host Department: | Department of Surgery and Anaesthesia | |
| Location: | University of Otago, Wellington 23a Mein Street, Newtown, Wellington 6021 | |
| | Can students work remotely? | Yes / <u>No</u> |

PROJECT TITLE:

Experiences of conservative management of Endometrial Cancer

AIM:

To investigate the experiences of women receiving conservative management for endometrial cancer using qualitative methods. This study aims to gain a deeper understanding of the care pathway, align with recent clinical guidelines, and identify areas for improving access and health outcomes.

METHODS:

It is a qualitative design: the methodology may involve individual interviews or focus groups across the North Island (namely Wellington and Auckland). Approximately 15 patients who have had AEH or endometrial cancer managed conservatively for at least 6 months will be invited to participate. Thematic analysis will be used to interrogate the data by reading the transcript and generating code book, to be completed by student and guided by two supervisors.

RESEARCH SIGNIFICANCE:

The gold standard of care for endometrial cancer is a hysterectomy (removal of uterus), however for young women that want to have a family, or for those who surgery poses a health risk, this treatment pathway is not an option. Therefore, it is becoming common for women to be offered 'conservative management', which means treating the cancer using the Mirena intrauterine device. The previous audit report identified unmet needs in the clinical pathway of this treatment including a high number of loss-to-follow ups and reported anxiety around biopsy methods. To date, there have been no qualitative studies conducted around women's experiences of this treatment pathway and the barriers or facilitators to receiving care. Because of the continuing inequities in cancer burden in this context, it is critical to explore Māori and Pacific experience of undergoing conservative management for endometrial cancer. Perspectives from lived experiences will help align and enhance the current NZ Gynaecological Cancer Group conservative management guidelines.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Ideally, the project will be conducted by a Pacific medical or biomedical student over the course of a University of Otago Wellington Summer Studentship leading into a Hons or Masters research year. This allows for the student to have to time to be involved in key stakeholder and community engagement, building foundations and relationships for appropriate data collection.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Previous experience/knowledge with Qualitative study method would be advantage, but not essential.

Summer Studentships 2024/2025

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| Main supervisor: | Dr Dorothy C. Lombe | |
| Email address: | Dorothy.Lombe@midcentraldhb.govt.nz | |
| Other Supervisor/s: | Pasan Waidyasekara | |
| Host Department: | Radiation Oncology | |
| Location: | Palmerston North Hospital | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Retrospective review of management and outcomes of patients treated for central nervous system tumours with radiotherapy between January 2013 – December 2023

AIM:

To evaluate the management and treatment outcomes of patients treated for high grade gliomas at Palmerston North Hospital

METHODS:

- We will conduct a literature review pertinent to our subject matter to elicit gaps in knowledge and grey practice areas
- The study population has been defined as patients with central nervous system tumours who received radiotherapy as part of their paradigm of treatment between 2013 and 2023
- The source of data will be the electronic clinical systems for MidCentral where we will determine robust variables that can be collected
- We will develop a study instrument for data collection based on the available variables determined by the literature review and electronic system reviews of data items available
- Data collection will be in a secure lockable computer and paper documents will be kept in a lockable cabinet

The de-identified data will be cleaned and analysed with appropriate explorative statistical methods based on the objectives

RESEARCH SIGNIFICANCE:

To identify modifiable characteristics that could improve outcomes or provide better prognostication for patients with Glioblastoma Multiforme

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

- Participate in the systematic review of data
- Data collection and clean up

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| RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS: |
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| No experience required |
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Summer Studentships 2024/2025

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| Main supervisor: | Emma O'Loughlin | |
| Email address: | Emma.oloughlin@otago.ac.nz | |
| Other Supervisor/s: | | |
| Host Department: | Surgery & Anaesthesia | |
| Location: | Wellington | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Exploring the Impact of Gendered Roles on Outcomes of ACL Injuries: A Cohort Study

AIM:

1. Examine how gender roles and societal expectations influence decisions regarding ACL injury surgical options, rehabilitation approaches, and adherence to treatment plans.
2. Explore the role of support systems, including family, friends, and health professionals in facilitating or hindering recovery from ACL injuries.
3. Explore the role of gendered tasks, finances, and paid employment versus unpaid home work in accessing and completing ACL rehabilitation.
4. Assess gendered access to resources and healthcare services, such as rehabilitation facilities, surgical specialists, support the ACL injury recovery process.

METHODS:

1. Set up survey on RedCap software.
 2. Contact health care organisations to advertise the survey. Escalated Care Pathway providers will be contacted due to them having participants' outcome measures on hand.
 3. Carry out consenting process & providing survey to participants.
- Use descriptive statistics to describe results.

RESEARCH SIGNIFICANCE:

The survey will explore how gender roles and societal expectations influence the experiences of women with ACL injuries.
This survey can contribute to efforts aimed at addressing gender disparities in musculoskeletal healthcare.
Findings from the survey may highlight areas where gender-sensitive interventions and policy changes are needed to promote equity for women with ACL injuries.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Using purposive sampling to recruit participants, consenting patients, survey operations including set up and ongoing iteration, descriptive statistics.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Interest in musculoskeletal medicine.

Summer Studentships 2024/2025

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| Main supervisor: | Fiona Imlach | |
| Email address: | Fiona.imlach@otago.ac.nz | |
| Other Supervisor/s: | Sue Garrett Jonathan Kennedy | |
| Host Department: | Primary Healthcare and General Practice | |
| Location: | Wellington | |
| | Can students work remotely? | No |

PROJECT TITLE:

General Practitioner and Nurse Practitioner perspectives on managing migraine in primary care

AIM:

To describe the experience of primary care clinicians with managing and treating refractory or more complex migraine disease in primary care and identify the main barriers to providing effective care. To identify further resources and support needed to improve primary care management and patient experience.

METHODS:

Individual interviews via zoom, phone or face to face with primary care clinicians asking about their experience of managing migraine in primary care.

RESEARCH SIGNIFICANCE:

Our previous research with people with migraine identified the impact of systemic health system issues and a perception of poor knowledge of migraine management from General Practice. This included lack of knowledge about new migraine medications and poor communication about treatment strategies. It is important to balance the patient voice with the perspective of general practitioners (GPs) and nurse practitioners (NPs). Findings from this study will contribute to our understanding of any barriers experienced by GPs and NPs when treating migraine in the community and identify any additional support that clinicians may find useful.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Help draft interview schedule, arrange and conduct interviews. Transcribe and analyse interview data.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Helpful if student has experience of migraine, either themselves or a family member.

Summer Studentships 2024/2025

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| Main supervisor: | Henry Liu | |
| Email address: | henry.liu@midcentraldhb.govt.nz | |
| Other Supervisor/s: | Dorothy Lombe Max Hoffman | |
| Host Department: | Radiology | |
| Location: | Palmerston North Hospital | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

MRI surveillance in patients previously treated for breast cancer in the MidCentral region of New Zealand

AIM:

To determine the cancer detection rate and outcomes of MRI surveillance in patients previously treated for breast cancer in the MidCentral region of New Zealand

METHODS:

Retrospective review of breast MRI database over a ten-year period (2014 -2024). Longitudinal review and analysis of medical records to determine demographic, clinical, radionomic and treatment relationships of the cohort.

RESEARCH SIGNIFICANCE:

The results of this research will have a two-fold impact. 1)Hypothesis generation for further prospective studies for the role of MRI in breast cancer surveillance post primary treatment. 2) Influence policy and guidelines formation of the clinical utilisation of MRI in breast cancer surveillance

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

- Systematic review of literature
- Data collection and clean up

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

No experience required

Summer Studentships 2024/2025

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|----------------------------|--|-----|
| Main supervisor: | Kamran Rostami | |
| Email address: | Kamran.Rostami@midcentraldhb.govt.nz | |
| Other Supervisor/s: | Noha Nasef | |
| Host Department: | Gastroenterology | |
| Location: | MidCentral Palmerston North | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Environmental factors contributing in pathogenesis of functional dyspepsia

AIM:

Assess the impact of Nutrition Therapy and other lifestyle related factors in functional dyspepsia

METHODS:

This will be a systematic review that assess the effect of environmental factor in particular nutrition in pathogenesis of functional dyspepsia

RESEARCH SIGNIFICANCE:

Environmental factors have been highlighted as most important component in genesis inflammatory condition and evidence suggest that functional dyspepsia in fact is triggered by antigens leading to inflammation of upper GI tract

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Literature review, analysis and writing the first draft of abstract for publication and presentation

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Not mandatory as this is also a part of teaching and education

Summer Studentships 2024/2025

| | | |
|----------------------------|--|-----|
| Main supervisor: | Kamran Rostami | |
| Email address: | Kamran.Rostami@midcentraldhb.govt.nz | |
| Other Supervisor/s: | Noha Nasef | |
| Host Department: | Gastroenterology | |
| Location: | MidCentral Palmerston North | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Environmental factors contributing in pathogenesis of Inflammatory bowel disease (IBD)

AIM:

Assess the impact of Nutrition Therapy and other lifestyle related factors in Ulcerative Colitis

METHODS:

If student spend the time at MidCentral then we do data collection and assess our practice outcome at MidCentral. If not able to be present then it should be a review study

RESEARCH SIGNIFICANCE:

Environmental factors have been highlighted as most important component in genesis of IBD

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Data collection, literature review and writing the first draft of abstract for publication and presentation

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Not mandatory as this is also a part of their teaching end education

Summer Studentships 2024/2025

| | | |
|----------------------------|--|-----------------|
| Main supervisor: | Dr Kathryn Hally | |
| Email address: | Kathryn.hally@otago.ac.nz | |
| Other Supervisor/s: | | |
| Host Department: | Department of Surgery and Anaesthesia | |
| Location: | Department of Surgery and Anaesthesia, Wellington Hospital | |
| | Can students work remotely? | Yes / No |

PROJECT TITLE:

SURVEILLANCE: cardiac troponin surveillance for detecting myocardial injury in vascular surgery patients.

AIM:

1. To recruit patients undergoing major vascular surgery into a dedicated cardiac troponin surveillance database.
2. To analyse the clinical risk predictors for developing myocardial injury in patients undergoing vascular surgery.

METHODS:

The overarching aim of the SURVEILLANCE study is to provide context for implementing a cardiac troponin surveillance program for vascular surgery at Wellington Hospital. A substantial proportion of postoperative morbidity and mortality is attributable to cardiovascular causes. Clinically silent myocardial injury (cardiac troponin rise in the absence of cardiovascular signs/symptoms) is alarmingly common and is strongly associated with postoperative mortality. This summer project will continue to recruit patients undergoing vascular surgery into a dedicated cardiac troponin surveillance program. Blood-based biomarkers (including troponin T) will be tracked throughout hospitalization, and correlated to the occurrence of in-hospital cardiac signs/symptoms and other relevant clinical characteristics.

RESEARCH SIGNIFICANCE:

This project will provide contemporary evidence for understanding how we can implement a surveillance program service-wide for monitoring both clinically overt and clinically silent myocardial injury.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

With the help of their supervisor and research team, the student will be involved in patient recruitment, blood collection and processing, and analysing the clinical risk predictors of post-operative myocardial injury.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Non necessary skills, experience with venepuncture preferred.

Summer Studentships 2024/2025

| | | |
|----------------------------|---|-----|
| Main supervisor: | Dr Kelvin Billingham (Chief Medical Officer) | |
| Email address: | Kelvin.billinghurst@midcentraldhb.govt.nz | |
| Other Supervisor/s: | Quality and Safety Team | |
| Host Department: | Medical Administration | |
| Location: | MidCentral Palmerston North | |
| | Can students work remotely? | No |
| Funding Req'd: | \$6,000 Summer Student Scholarship Stipend | Yes |

PROJECT TITLE:

Improving Flow at Palmerston North Hospital / Te Whatu Ora MidCentral

AIM:

Multiple efforts are underway to improve patient flow at Palmerston North Hospital. The aim of the project is to support this work by identifying “new” areas or build on existing activities of health systems improvement. The focus is on the flow of patients from the Emergency Department through to Inpatient Wards and then on to discharge into the community.

METHODS:

Health Services Research (HSR)

The aim of the studentship will be to –

- Undertake a deeper dive into aspects that may impact patient flow or evaluation some of the efforts already underway to improve patient flow at MidCentral. This could involve –
 - o Data analysis
 - o Review of patient files
 - o Conduct primary data collection through survey of patients or care givers
- Identify areas of improvement or intervention identified through the data
- Develop a plan or intervention to address the identified issue
- Short sharp implementation of the intervention with ongoing evaluation
- Identify areas of bringing the intervention to scale and to sustainability within the current health context

RESEARCH SIGNIFICANCE:

New models of care and approaches are currently being proposed as restructuring with Te Whatu Ora continues. These have to be cost effective, sustainable and significant. This research will add to our knowledge in this area and

include aspects of being able to operationalize health service improvement. The intention is to improve further health systems efficiencies.

The information obtained process and learnings will be of significance to warrant publication in either the peer review or grey literature.

Specific areas that might be part of the process are –

1. Emergency Department
 - 1.1. Frequent attenders
 - 1.2. Patients who did not wait
 - 1.3. Triage category 4&5 admissions
 - 1.4. ED presentations from selected geographical areas (Horowhenua)
 - 1.5. Fast track services for triage category 4&5's
2. Inpatient
 - 2.1. Deeper review of length of stay longer than the average for medical patients
 - 2.2. Identify redundant processes that adds to length of stay for patients
 - 2.3. Match coding data to longer lengths of stay
3. Community
 - 3.1. Liaison with General Practices for fast track discharge and more immediate follow up
 - 3.2. Community allied health
 - 3.3. Hospital in the home options
4. Other

Health systems are continually improving and developing in the context of health system reforms. Additional areas may become a priority into the near future. Discussions with the student will occur if there is going to be significant adjustments to this proposal.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will work with the various health teams or departments as directed by the Chief Medical Officer and the Quality and Safety Team. This will include the activities as described above.

From these activities, they will have a good understanding of health services, health services research and awareness of health operational issues. The student will understand governance of health audits and research activities as well as the Maori Research process at MidCentral. The student will understand various quality and safety processes and accountabilities that is required in the health sector. The student will leave with a good understanding as to why health services have existing policies, processes and safe guards in place.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Knowledge and skills will be developed or expanded during the time of the attachment. These include –

- Familiarity of research methodology
- Basics of data analysis (using Microsoft Excel or Access) for descriptive analysis
- Writing skills
- Communication

Preferences will be given to a local candidate with activities occurring onsite.

STUDENT:

Do you currently have a student for this project? *NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.*

YES NO

If yes, name of student:

Funding confirmed? YES NO

If yes, please provide the account code: MidCentral Undergraduate Trust / RC

If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders):

Please confirm the following:

I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.

I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.

Supervisor Signature:



Kelvin Billinghamurst

MBChB, DCH, DipO&G, DTM&H, DPH, MPH(PH) MHA, FRACMA, FCHSM, CHE

Chief Medical Officer

Te Pae Hauora o Ruahine o Tararua | MidCentral

waea pūkoro: +64 272056521 + 64 6 350 8406 | Īmēra: kelvin.billinghurst@midcentraldhb.govt.nz

EA: waea pūkoro: +64 06 350 8821 | Mobile tbc Īmēra: salomie.basson@midcentraldhb.govt.nz

PO Box 2056, Gate 2 Heretaunga Street, Palmerston North 4440.

Date: 28/07/2024

Summer Studentships 2024/2025

| | | |
|----------------------------|---------------------------------|-----------------|
| Main supervisor: | A/Prof Laurel Teoh | |
| Email address: | laurel.teoh@otago.ac.nz | |
| Other Supervisor/s: | | |
| Host Department: | Paediatrics and Child Health | |
| Location: | University of Otago, Wellington | |
| | Can students work remotely? | Yes / <u>No</u> |

PROJECT TITLE:

Investigating chronic cough among children with obstructive sleep apnoea.

AIM:

In children with obstructive sleep apnoea (OSA), to

1. determine if chronic cough is increased compared to those without OSA
2. describe the objective pattern of cough (i.e. daytime vs night time) in those with cough associated with OSA.

METHODS:

Approximately 40 children aged < 18 years seen in the Paediatric Sleep Clinic with symptoms and signs suggestive of OSA have been recruited. The following data have been collected:

- Clinical review and collection of baseline data (OSA symptoms, medication use, co-existing conditions such as allergic rhinitis, asthma, etc.)
- Cough and OSA questionnaires^{1,2}
- Paediatric cough QOL questionnaires (child and parent)
- Peds QL (Paediatric QOL) questionnaires (child and parent)
- Daily cough diary until the cough resolved
- Allergen skin prick test to 6 aeroallergens
- Nasopharyngeal aspirate for respiratory viruses
- Overnight polysomnography (PSG) - an AHI > 1 is considered abnormal
- Digital recording of the cough during the overnight PSG and during the next day.

The child has been clinically followed by the paediatric respiratory/sleep physician until the diagnosis of OSA was confirmed by overnight PSG and expected cough resolution was obtained following treatment of OSA (maximum 12 months).

Cough that resolves after treatment of OSA will be considered as 'Cough with OSA'. Those whose cough resolves spontaneously or with other therapies (i.e. any other treatment not specific for OSA) will be considered 'Cough not

associated with OSA'. The proportions of these 2 groups of children will be statistically compared using Chi square analysis.

Descriptive data will be used for proportions of children presenting with OSA who have a cough. The pattern of cough (time of day, frequency) will be described in those in the 'Cough with OSA' group.

RESEARCH SIGNIFICANCE:

Cough is the most common symptom presenting to general practitioners.³⁻⁵ Worldwide, the desire to reduce the impact of the symptom of cough is reflected in the billions of dollars spent on over-the-counter cough and cold medications. General management of children with non-specific cough currently involves the 'watch, wait, and review' approach.⁵⁻⁷ For specific cough the intervention is for the presumed aetiology. However, some treatments including that for OSA may be invasive (such as adenotonsillectomy) with an associated small but significant risk of morbidity and mortality. Others such as non-invasive positive pressure ventilation (NIPPV) strategies have substantial cost implications. Thus, research looking at the efficacy of OSA treatments for chronic cough would be useful in assessing the risk vs benefit details of the therapy, therefore helping to guide clinical practice.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will listen to the digital sound recorders to document the child's coughing episodes during the PSG and the next day, enter data into a database and perform statistical analysis using a statistical package. The student will develop skills in analysing cough recordings, data management, data quality and data analysis. The student will also develop skills in producing and presenting a poster.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Basic statistical skills would be desirable but not essential.

STUDENT:

Do you currently have a student for this project? *NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.*

YES NO

If yes, name of student:

Funding confirmed? YES NO

If yes, please provide the account code:

If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders):

Cure Kids, Freemasons New Zealand.

Please confirm the following:

- I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.
- I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.
- I have provided suggestions for at least 1-2 potential funders for this project.

Supervisor Signature:



Date: 26 June 2024



Summer Studentships 2024/2025

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| PROJECT TITLE: | |
| Pilot study assessing efficacy of KiteLock 4% (catheter lock solution) in haemodialysis patients via Central Venous Access Devices as compared to standard of care (heparin and citrate locks) | |
| Main supervisor: | Dr Leila Arnold |
| Email address: | Leila.arnold@midcentraldhb.govt.nz |
| Other Supervisor/s: | Dr Ankur Gupta; Dr Norman Panlilio |
| Host Department: | Renal |
| Location: | Palmerston North hospital |
| | Can students work remotely? Yes (most days) |

| |
|---|
| AIM: |
| In this pilot study, by using KiteLock (4% Sterile Catheter Lock Solution) in Central Venous Access Devices (CVADs) for local haemodialysis (HD) patients, we will assess the effectiveness of reducing biofilm production, mechanical obstruction (patency or failure) of CVADs, as well as infection rates, biomarkers of inflammation and ? cost as compared to standard care (heparin 5000 units/mL and citrate locks). |

| |
|--|
| METHOD: |
| <p>A prospective triple-comparative audit will be performed at Palmerston North hospital on prevalent HD patients with a CVAD. We aim to recruit 10 patients with tunnelled HD catheters on maintenance HD for the treatment arm (KiteLock) and compare outcomes with 10 of each baseline standard of care (citrate and heparin locks used) HD patients.</p> <p>Patients will be randomly assigned to receive KiteLock 4% locks (Cathasept group) or stay with heparin 5,000 U/mL locks (heparin group) or with citrate locks (Citrate group), filled thrice weekly according to catheter lumen volume until the catheter was removed or for a maximum of 3 months.</p> <p>The primary outcome is assessing increased use of Alteplase and/or change of catheter due to thrombosis or persistent poor flows.</p> <p>The secondary outcomes included CRBSI rate and biomarkers of inflammation.</p> <p>Measurements: monthly through-catheter quantitative blood culture, high-sensitivity C-reactive protein, full blood count and ferritin. Blood cultures will be taken from the CVAD as well as the periphery to ensure we capture line-related colonisation/infection versus non line-related infection. If, at any point in time, there are clear clinical features of infection, additional/earlier cultures and bloodwork will be done.</p> <p>Inclusion criteria: Age > 18 years; Presence of CVAD requiring locking in maintenance HD patients; Those requiring 2 or more treatments with Alteplase or failure to achieve target pump speed on dialysis</p> |

Exclusion criteria: Known sensitivity to EDTA; Pregnancy (confirmed or suspected); Currently enrolled in any other research study that may confound primary outcome measures

RESEARCH SIGNIFICANCE:

Catheter-related bloodstream infections (CRBSIs) cause morbidity and mortality in HD patients. KiteLock is a non-antibiotic, antimicrobial Class II medical device. The mechanism of action is related to its chelation properties (contains tetra-sodium EDTA and water), which is entirely different to the mechanism of action of antibiotics. EDTA has an affinity for metals and elements such as calcium such that when bacterial cell walls are exposed to EDTA, calcium is removed thereby destroying the wall and subsequently killing the bacteria. A similar process occurs with biofilms, where calcium removed by EDTA destroys the scaffolding of the slime, thereby puncturing the biofilm for EDTA to reach the bacteria.

Due to KiteLock's chelating abilities, it will impact coagulation and micro-organisms as soon as the CVAD is locked. It has been shown to take 3 to 6 hours to eradicate most common mono-species and mixed-species biofilm ⁽¹⁾. It is the only catheter lock solution proven to do this. It has been shown that within 24 hours, KiteLock eradicates Candida sp and MRSA (methicillin-resistant Staphylococcus aureus) bacteria and biofilm. KiteLock is indicated for the maintenance of patency and to decrease the risk of bacterial colonisation and biofilm formation within CVADs indicated for use in CVADs such as CVCs, PICCs and ports. It is compatible with polyurethane, silicone, and most standard catheter materials. KiteLock is not recommended for midline catheters or peripheral intravenous (PIV) catheters, since studies have not yet been conducted.

A randomised clinical trial (multicentre) was conducted in haemodialysis patients where KiteLock (brand name Cathasept) was compared to the current standard of care, heparin at 5000 U/mL. KiteLock demonstrated a statistically significant decrease in bacterial colonisation compared to heparin by 87% ⁽²⁾.

There is a quoted 63% reduction in cost when 4% EDTA was used for 24 months as compared to using 0.9% sodium chloride, heparin or taurolidine ⁽³⁾.

STUDENT'S ROLE:

The student will undertake a brief literature review of relevant published studies. They will, under supervision, analyse data and assess outcomes with the intention of aiding academic writing skills by translating the material into a research paper.

EXPOSURE TO SCIENTIFIC METHOD:

Exposures to scientific methods include literature review, Retrospective analysis, Data analysis, Paper presentation to conference, Scientific writing and Publication to indexed journal.

STUDENT PREREQUISITES:

Do you have a student in mind? YES NO

| | |
|----------------------------------|---|
| Will the project require? | |
| Ethics? | <input type="checkbox"/> YES - Approval Number: |
| | <input checked="" type="checkbox"/> NO |
| Locality Assessment? | We will arrange locality assessment |
| Māori/Pacific consultation? | Will be sought |

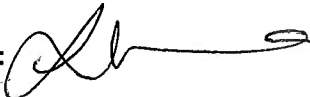
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| RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS: |
| None required |

| |
|---|
| STUDENT: |
| Do you currently have a student for this project? <i>NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.</i> |
| <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| If yes, name of student: |
| |

| |
|---|
| Funding confirmed? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| If yes, please provide the account code: |
| If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders): |
| University of Otago |

Please confirm the following:

- I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.
- I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.
- I have provided suggestions for at least 1-2 potential funders for this project.

Supervisor Signature: 

Date: 17/7/24

Summer Studentships 2024/2025

| | | |
|----------------------------|-----------------------------|-----------------|
| Main supervisor: | Dr Lori Leigh | |
| Email address: | Lori.leigh@otago.ac.nz | |
| Other Supervisor/s: | | |
| Host Department: | Public Health | |
| Location: | Hanson Street, Wellington | |
| | Can students work remotely? | Yes / No |

PROJECT TITLE:

Rainbow Housing NZ: Online Networks and Affinity Spaces

AIM:

An urgent need exists for targeted policies to support Takatāpui & LGBTIQ+ communities in navigating housing and the health system. Despite comprising a significant subset of the population, research on Takatāpui & LGBTIQ+ housing and health in Aotearoa is sparse. The complexity and nuance of their issues remain hidden, necessitating a deeper understanding of their housing challenges. Responding to a sector need, Gender Minorities Aotearoa began a private Facebook group “Rainbow Housing NZ” which has been running for over seven years. The online network is for Transgender and other rainbow people in Aotearoa NZ who are looking for houses or housemates, and trans/rainbow-friendly houses offering rooms. The group has over 5,000 members and hosts several posts a day. To better understand Takatāpui & LGBTIQ+ housing and health needs and experiences, the aim of this project is to investigate this online queer housing forum.

METHODS:

Through qualitative methods, this summer project will use the Rainbow Housing NZ Facebook page to explore the experience of those who have encountered homelessness, housing instability, and housing discrimination in the Takatāpui & LBGTIQ+ community and their journeys through the housing system in Aotearoa. There will be three phases to the research: 1) consultation with Gender Minorities Aotearoa who facilitate the group 2) content analysis of the Rainbow Housing NZ group to determine the presence of certain words, themes, or concepts and quantify and analyze the presence, meanings, and relationships of certain words, themes, or concepts, and 3) design and administration of a survey for users of the network to collect data on their housing experiences specifically related to the site.

RESEARCH SIGNIFICANCE:

The impetus for this research is founded on a growing, yet under-resourced and misunderstood, Takatāpui & LBGTIQ+ population in Aotearoa, recent changes in policies relating to home-ownership and the private rental market (i.e. amendments to the Residential Tenancies Act), and a sector need to address disparity in our interconnected housing and health systems.

This research builds on previous work within our programme, He Kāinga Oranga, and is a stepping stone towards future work led by Dr Leigh in this area.

Results may help Gender Minorities and other agencies better understand how the group is used.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student scholar will be supervised and mentored by Dr Leigh. The two will collaborate to manage this project, coordinating research relationships, research design, data collection, analysis, writing, and dissemination. The student will be exposed to Takatāpui and Queer health and wellbeing frameworks and qualitative research methods. At the end of the project, research findings will be written into a short report and presentation for Gender Minorities Aotearoa and other Rainbow entities.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

The student will have a basic understanding of qualitative research methods. An understanding of or experience with survey design and/or content analysis is preferable. It is desirable for the student to have an interest or experience in housing equity, and Takatāpui & LGBTIQ+ student researchers are invited to apply.

Summer Studentships 2024/2025

| | | |
|----------------------------|--|----|
| Main supervisor: | Dr Mary Buchanan | |
| Email address: | Mary.buchanan@otago.ac.nz | |
| Other Supervisor/s: | Dr Lori Leigh | |
| Host Department: | Public Health | |
| Location: | Wellington | |
| | Can students work remotely? | No |

PROJECT TITLE:

Accommodation Matters: Exploring Housing Experiences of Children with Disabilities and Their Whānau

AIM:

This research project will explore the housing experiences of children with disabilities and their families, through qualitative parent or guardian surveys.

METHODS:

Through qualitative methods, this research project will collect data to better understand the housing experiences and needs of children with disabilities and their whānau. Our summer student will help design and conduct an online survey targeting parents or guardians of children with disabilities. Our participants will be recruited online, via existing partnerships including community housing providers such as Te Toi Mahana, and community Facebook pages. The survey will ask for free text responses to allow parents and guardians to describe their experiences in their own words to capture depth and ensure sensitivity. The responses will be analysed using thematic analysis, with the aim of representing common experiences among the participants.

This project will draw on concepts from Sen's Capabilities Approach Framework (1). This framework considers the interactions of an individual's unique needs, aspirations and capabilities with infrastructures and resourcing, and how this does, or does not allow them to be well on their own terms.

(1) Mitra S. The capability approach and disability. *Jrnl of Disabil Policy Stud.* 2006;16(4):236-47.

RESEARCH SIGNIFICANCE:

Everyone needs a place to call home that is affordable, safe, and accessible. Few studies have to date explored the housing experiences of the disabled community in Aotearoa. Furthermore, there is currently no evidence on the particular housing experiences of children/tamariki with disabilities. Available housing and disability research from Aotearoa demonstrates the inadequacy of many of our systems and dwellings to meet the needs of the disabled community and resulting poor health and wellbeing outcomes for their caregivers. Children are often overlooked or unseen in research, but have unique experiences and needs in housing. Therefore, understanding their experiences and needs in research is an important step in increasing their access, safety and autonomy in housing. Parents and guardians will be sought as informers to their children's and families' experiences, as they often shoulder the

responsibility to ensure their home is safe and accessible for their children. This research will provide valuable insight as to how policymakers can best support families and children with disabilities to ensure their housing needs are understood and met, enabling them to flourish. This research compliments existing research by He Kāinga Oranga about housing as a critical determinant of health and wellbeing.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will contribute to survey design and participant recruitment through community groups. At the end of the survey window, the student will code, analyse and present the results, using qualitative methods. The student will have the choice of presenting the results in a poster, or as a research article.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

The student will have a basic understanding of qualitative research methods. An understanding of, or experience with, survey design is preferable. It is desirable for the student to have an interest or experience in housing equity and the disability sector. A student with lived experience of disability is especially welcomed to apply.

Summer Studentships 2024/2025

| | | |
|----------------------------|-----------------------------|----|
| Main supervisor: | Matthew Jenkins | |
| Email address: | matthew.jenkins@otago.ac.nz | |
| Other Supervisor/s: | Susanna Every-Palmer | |
| Host Department: | Psychological Medicine | |
| Location: | Wellington | |
| | Can students work remotely? | No |

PROJECT TITLE:

Evaluating the effectiveness of a knowledge- and skill-sharing sessions for health professionals working within early psychosis

AIM:

This project follows on from a previous study in which our team worked to understand the lived experiences of rangatahi experiencing early psychosis (rangatahi whai ora) and co-designed a system of support for their holistic health and wellbeing. A key part of this system is a 12-week programme facilitated by various health promoters (mental health services, pharmacists, physical activity and nutrition providers, creative expression facilitators).

As a precursor to this programme, we will bring together these health promoters to share basic skills and knowledge with regards to each others' domains, and to build relationships (whakawhanaungatanga) that support referral systems amongst themselves when working with rangatahi whai ora.

Therefore, the aim of this project is to evaluate this session with regards to effectiveness in building cross-discipline relationships and self-efficacy in terms of delivery of basic practice in fields that are not participants' own.

METHODS:

The session will take part over the course of four hours in a single day, to be facilitated by co-design specialists Studio C. To evaluate the session, the research team will interview and survey participants (approx. N = 20). Basic descriptive analyses will be used to describe the participant sample and describe their experiences within the session.

RESEARCH SIGNIFICANCE:

Our previous research has shown that one of the key barriers to positive health and wellbeing of rangatahi experiencing psychosis is a lack of capacity for health providers to offer holistic, wraparound wellbeing support. By assessing the effectiveness of this single session amongst in terms of self-efficacy in delivering in areas of health promotion that are not one's own, and/or the extent to which they feel the session has built a good working relationship with other health promoters in a way that supports effective cross-disciplinary referrals. If effectiveness

in this sense, this is likely to have a large positive impact on the wraparound support offered to rangatahi whai ora, and thus positively support their health and wellbeing.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Students will be support to:

- Develop an interview guide;
- Design a basic survey (to be conducted online and in-person);
- Collect data from service providers in the form of interviews and surveys;
- Analyse and interpret data.

We note that this is a preliminary stage of a larger project, in which the team will be delivering a holistic, co-designed health and wellbeing programme to rangatahi experiencing psychosis. Undertaking this summer studentship will open up the possibility of continued involvement in this project.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

We do not expect experience in these areas, but we will provide an opportunity to build experience in students wishing to better understand:

- Qualitative interviewing and data analysis;
- Basic survey-building and interpretation.

Summer Studentships 2024/2025

| | | |
|----------------------------|---|----|
| Main supervisor: | Peter Larsen | |
| Email address: | Peter.larsen@otago.ac.nz | |
| Other Supervisor/s: | Kate Chadwick, Billie Mudie, Ana Holley | |
| Host Department: | Surgery and Anaesthesia and Radiation Therapy | |
| Location: | Level 9, WSB, Wellington Hospital | |
| | Can students work remotely? | No |

PROJECT TITLE:

Do modern techniques reduce cardiac mortality associated with breast radiation therapy?

AIM:

To determine whether intermittent breath holding techniques result in left-sided radiation therapy being as safe as right-sided in terms of cardiovascular outcomes.

METHODS:

This will be a retrospective clinical audit looking at patients treated with radiation therapy for stages I-III breast cancer at the Wellington Blood and Cancer Centre (WBCC). We will compare those receiving left- and right- sided treatment, with a primary endpoint of 5-year cardiovascular events (cardiac death, myocardial infarction, new heart failure).

RESEARCH SIGNIFICANCE:

Historically, radiation delivered to the left-side of the chest to treat breast cancer resulted in an elevated risk of myocardial infarction and cardiovascular death when compared to right-sided treatment. In 2017 WBCC moved to use intermittent breath-holding as a technique to reduce the dose of radiation delivered to the heart. This was on the basis of studies demonstrating that radiation dose was reduced. However, very few studies have subsequently confirmed that the theoretical reduction in cardiac risk has actually resulted in improved cardiovascular outcomes. We want to determine if this is indeed the case, or alternatively if further work is still required to reduce risk in those receiving left-sided radiation.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will be exposed to data collection approaches, statistical analysis and the writing of clinical material.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Understanding of clinical radiation therapy would be an advantage.

Summer Studentships 2024/2025

| | | |
|----------------------------|--|-----|
| Main supervisor: | Simon Scheck | |
| Email address: | Simon.scheck@otago.ac.nz | |
| Other Supervisor/s: | Claire Henry, Ellie Brooking, Nick Bedford | |
| Host Department: | O&G | |
| Location: | Wellington | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Multi-modal Management of Persistent Pelvic Pain

AIM:

To retrospectively review interactions through the healthcare system and assess outcomes for patients referred for two non-surgical treatment pathways for persistent pelvic pain

METHODS:

Retrospectively identify all patients referred from gynaecology outpatient services over a 2 year period for:

1. Pelvic floor Botox treatment
2. Regional pain service

Information to be collected:

- Record patient demographics:
 - Age
 - Ethnicity
 - Gender
- Pain history
 - Known history of endometriosis including previous surgery
 - Previous Botox treatment
- Multidisciplinary input
 - Physiotherapy assessment prior
 - Physiotherapy assessment after
 - Number of assessments
- Time from referral by gynaecology to review by physiotherapy/pain service
- Gynaecology follow up (and timing) after Botox / pain service review
- Provisional diagnosis/diagnoses by gynaecology service
- Provisional diagnosis/diagnoses by pain service / physiotherapy

- Patient outcomes at most recent visit
 - Time since Botox / pain service review
 - No improvement/Temporary improvement/Ongoing improvement
 - Gynaecology follow up: Patient discharged/Ongoing review with gynaecology
 - Multidisciplinary follow up: Patient discharged/Ongoing review with pain service or physiotherapy

RESEARCH SIGNIFICANCE:

Persistent pelvic pain is extremely common, estimated to affect one in four women and gender diverse people in Aotearoa ¹. Public funding to Women’s Health is limited, in many places nationally has been limited to “high suspicion of cancer” services only ^{2,3} to compensate for the mismatch between resources and demand. This often leaves people with persistent pelvic pain without access to hospital services. This likely magnifies inequities, as Māori and Pacific women are less likely to present with pain, and less likely to be referred ^{4,5}.

Traditionally gynaecology services have managed most persistent pelvic pain with surgery to assess and treat endometriosis; however as awareness increases multimodal treatment has expanded to address non-endometriosis factors including pelvic floor dysfunction, neurological factors and psychological factors amongst others. Some of the most effective treatments for these include physiotherapy, which can be used in conjunction with pelvic floor Botox treatments, and referral to a multidisciplinary chronic pain service.

This study aims to assess the utility of these treatments by a tertiary gynaecology service in Aotearoa including the number of patients referred, the patient journey through the healthcare system when these services are utilised, and whether there appears to be improvement in patient outcomes as a result.

1. Grace V, Zondervan K. Chronic pelvic pain in New Zealand: prevalence, pain severity, diagnoses and use of the health services. *Aust NZ J Pub Heal* 2004;28:369–75.
2. https://www.nzherald.co.nz/nz/women-left-in-pain-as-gynaecologists-prioritise-suspected-cancer/IEYRKB6BJE5DLYCTBYEFPGQCU/#google_vignette
3. <https://www.rnz.co.nz/news/national/400491/women-denied-treatment-for-gynaecological-conditions>
4. Tewhaiti-Smith, J., Semprini, A., Bush, D. et al. An Aotearoa New Zealand survey of the impact and diagnostic delay for endometriosis and chronic pelvic pain. *Sci Rep* 12, 4425 (2022). <https://doi.org/10.1038/s41598-022-08464-x>
5. Lewis GN, Upsdell A. Ethnic disparities in attendance at New Zealand's chronic pain services. *N Z Med J.* 2018 Mar 23;131(1472):21-28. PMID: 29565933.

STUDENT’S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will have some involvement in the retrieval of retrospective data, which will be assisted by the research team.

The student will lead the design of a data collection tool, with assistance as required. The student will extract and collate all of the data, with assistance as required.

With assistance the student will interpret the data to tell a narrative. The student will be involved in the final write up of a scientific paper, with the goal of presentation locally and likely publication.

There will be opportunity for the student to attend pelvic pain clinics as an adjunct to help with understanding the scope of the project.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

Any prior experience with data collection and scientific report writing would be helpful but is not necessary.
An interest in persistent pelvic pain is required.

STUDENT:

Do you currently have a student for this project? *NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.*

YES NO

If yes, name of student:

Funding confirmed? YES NO

If yes, please provide the account code:

If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders):

Please confirm the following:

- I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.
- I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.
- I have provided suggestions for at least 1-2 potential funders for this project.

Supervisor Signature:



Date: 1/7/24

Summer Studentships 2024/2025

| | | |
|----------------------------|--------------------------------------|-----|
| Main supervisor: | Simone Anthony | |
| Email address: | simone.anthony@midcentraldhb.govt.nz | |
| Other Supervisor/s: | | |
| Host Department: | Midcentral Hospital HealthPathways | |
| Location: | | |
| | Can students work remotely? | Yes |

PROJECT TITLE:

Audit of implementation of Hospital HealthPathways Program at Palmerston North MidCentral

AIM:

The aim of this project will be to assess the implementation of the Hospital HealthPathways program at Palmerston North Hospital MidCentral

METHODS:

Review the Hospital pathways database of processes and procedures since its inception at Palmerston North Hospital

RESEARCH SIGNIFICANCE:

As HealthPathways was originally developed in Canterbury, New Zealand, we would like to gain an understanding in the success and bottlenecks in implementing Hospital HealthPathways locally at Palmerston North Hospital. The pathway is designed and written for use during a secondary care consultation. Each pathway provides clear and concise guidance for assessing and managing a patient with a particular symptom or condition in secondary care. Pathways also include information about making requests to services in the local health system. Content is developed collaboratively by general practitioners and a wide range of other health professionals. Each pathway is evidence-informed, but also reflects local reality, and aims to preserve clinical autonomy and patient choice. HealthPathways serves to reduce unwarranted variation and accelerate evidence into practice.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will audit the processes and procedures that have been used to implement this system here at Palmerston North Hospital. They will work with specific data to quantify the progress made so far

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

No experience required

Summer Studentships 2024/2025

| | | |
|----------------------------|---|--|
| Main supervisor: | Dr Snita Ahir-Knight | |
| Email address: | snita.ahir-knight@otago.ac.nz | |
| Other Supervisor/s: | A/Prof Mark Huthwaite | |
| Host Department: | Department of Psychological Medicine Te Tari Whakaora Hinengaro Tangata | |
| Location: | Wellington Pōneke | |
| | Can students work remotely? | Yes / No – The student must be on-site at least Tuesdays and Thursdays while the department is open. |

PROJECT TITLE:

Reimagining Psychiatric Documentation: Philosophical Perspectives and Practical Implications of Co-Producing Notes

AIM:

The project is a scoping review to identify and map the available evidence on the impact and philosophical underpinnings of co-producing mental health notes between service users and psychiatrists. It seeks to understand the coverage of literature on how collaborative note-taking influences relationships and engagement of shared documentation in psychiatric practice. The aim is to examine evidence to inform what research has already been conducted.

METHODS:

With guidance from the supervisors, the student will conduct a scoping review of existing literature on co-producing notes in psychiatry.

If there is time, the student may, working closely with the supervisors, assist with the following:

Philosophical Analysis: Consider philosophical (Māori, Indigenous, or Western) concepts, such as autonomy, shared knowledge, and sovereignty, to provide resources for a conceptual analysis on understanding co-produced notes.

Or

Qualitative Research: Select, justify, and design a qualitative method for a future project to investigate the views of service users and psychiatrists who have either experienced co-producing notes, declined the opportunity, or it has not been made available to them. The aim is to explore their perceptions of the process, its benefits, and its challenges.

RESEARCH SIGNIFICANCE:

This research will contribute to understanding what has already been conducted on how co-producing notes can impact the therapeutic process in psychiatry, enhancing patient engagement and collaboration. It will provide insights for a future project, which may provide a future research opportunity for the same or other students.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

The student will be responsible for conducting the scoping review.

They may also assist the main supervisor with gathering philosophical literature for an analysis, or alongside both supervisors; they may select, justify, and design a qualitative method for a future project if there is time.

The student will produce a poster for the Poster Showcase Event and a written report on the scoping review.

The student will be encouraged to attend and present at the RANZCP New Zealand Conference in September 2025.

They may also work closely with the supervisors to present findings to those with lived experience of mental distress and academic and professional audiences, highlighting key insights. This may include co-authoring a journal article or media opinion piece.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

The student should understand psychiatric practice. Familiarity with qualitative research methods and philosophical concepts is advantageous but not necessary as the student will be supported by the supervisors. Effective communication skills, an interest in the intersection of practical and philosophical considerations in psychiatry, and a commitment to the World of Difference programme are essential.

Applicants must include a 100-word statement in their application on their alignment with the World of Difference programme, either as a member of the lived experience community or an ally. The student will be paid \$6,000 for this opportunity through a World of Difference - He Ao Whakatoihara kore Research Student Stipend Award.

(Find out more about World of Difference here: <https://www.otago.ac.nz/wellington/departments/department-of-psychological-medicine/research-and-projects-in-the-department-of-psychological-medicine/world-of-difference>)



**Ōtākou
Whakaihu Waka**
UNIVERSITY OF OTAGO

Pōneke
Wellington
Campus

Summer Clinical Observership 2024/2025

***Note this is a 4-week only clinical observership opportunity in the Neurology Department in Wellington, with an associated \$2500 stipend.**

| STUDENTS REQUISITION: |
|--|
| 4 th year Māori medical student enrolled at the University of Otago |

Summer Studentships 2024/2025

| | | |
|----------------------------|---|--|
| Main supervisor: | Dr Anthony Lin | |
| Email address: | Tony.lin@otago.ac.nz | |
| Other Supervisor/s: | | |
| Host Department: | Department of Surgery & Anaesthesia, Wellington | |
| Location: | Wellington | |
| | Can students work remotely? | <input type="checkbox"/> Yes / <input type="checkbox"/> No |

PROJECT TITLE:

Does reinforcing staple colorectal anastomosis lower complications after colorectal cancer surgery

AIM:

1. Determine the practice pattern of anastomosis reinforcement during bowel cancer surgery in Australia and New Zealand.
2. Compare the short-term outcomes of those who had the anastomosis reinforced vs no reinforcement.

METHODS:

Data will be obtained from the CSSANZ Bowel Cancer Outcomes Registry on patients undergoing surgery for colon or rectal cancer with the formation of anastomoses from the inception of the registry to December 2023.

The primary outcome is the rate of anastomotic leak. The secondary outcomes include any post-operative complications, rate of ileus, rate of bleeding complications, length of stay, rate of return to theatre, and 30-day mortality. The analysis will be stratified based on the type of surgery (i.e., right-sided resection vs left-sided vs rectal surgery).

Descriptive statistics will be analysed for each relevant factor. The distribution of continuous data will be assessed using a histogram and the Shapiro–Wilk test. Normally distributed data will be expressed as mean (standard deviation (SD)) and analysed using an independent samples t-test. Nonparametric continuous data will be expressed as median (interquartile range (IQR)) and compared using the Mann–Whitney U test. Categorical variables will be compared using the Chi-squared test of independence. Multivariate logistic regression will be performed to identify factors associated with anastomotic leak.

RESEARCH SIGNIFICANCE:

Stapled anastomoses are a common way of restoring anatomical continuity after colorectal resections. However, the utility of reinforcing or oversewing anastomoses is debatable. A recent systematic review

looking at anastomotic reinforcement during rectal cancer surgery demonstrated a lower rate of anastomotic leak, lower infection rate, shorter hospital stay, and earlier passage of flatus in the reinforced group. The papers included were all from the Asia-Pacific region. This study examines the practice patterns of anastomotic reinforcement and outcomes in Australia and New Zealand.

STUDENT'S ROLE AND EXPOSURE TO SCIENTIFIC METHOD:

Hypothesis formulation.
Extract information from a prospectively maintained cancer database.
Perform statistical analysis.
Draft a manuscript.

RELEVANT PREVIOUS EXPERIENCE FOR STUDENTS:

MBCHB year 2-6 students with knowledge of the CCDHB clinical records system and basic statistical background.

STUDENT:

Do you currently have a student for this project? *NB: if you do not, your project will be advertised to students who are interested in summer studentships and you will receive applications to select a student from.*

YES NO

If yes, name of student:

Funding confirmed? YES NO

If yes, please provide the account code:

If no, please suggest possible funders (you MUST suggest at least 1-2 potential funders):

Please confirm the following:

- I understand that Supervisors are responsible for arranging the appropriate/required ethical approvals, localities, and community consultation (including Māori consultation) for projects.
- I have informed my HoD that I am intending to supervise a summer student and the department is able to host them.
- I have provided suggestions for at least 1-2 potential funders for this project.

Supervisor Signature:



Date:

9 June 2024